

ABSTRACT OF THE DISCLOSURE

Gate lines including a lower Al-Nd layer and an upper MoW layer, data lines including a MoW layer, and pixel electrodes including an IZO layer are patterned using a single etchant.

The etchant contains a phosphoric acid of about 50-60%, a nitric acid of about 6-10%, an acetic acid of about 15-25%, a stabilizer of about 2-5% stabilizer, and deionized water. The stabilizer includes oxy-hydride inorganic acid represented by $M(OH)_X L_Y$, where M includes at least one of Zn, Sn, Cr, Al, Ba, Fe, Ti, Si and B, L includes at least one of H_2O , NH_3 , CN and NH_2R (where R is alkyl group), X is 2 or 3, and Y is 0, 1, 2 or 3.